CLAIMS

What is claimed is:

1. An isolated nucleic acid fragment encoding a pyridoxal kinase comprising a member selected from the group consisting of:

(a) an isolated nucleic acid fragment comprising at least 400 contiguous nucleotides wherein the nucleic acid fragment encodes an amino acid sequence that is at least 80% identical to the amino acid sequence set forth in a member selected from the group consisting of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6 and SEQ ID NO:8;

(b) an isolated nucleic acid fragment that is complementary to (a).

2. The isolated nucleic acid fragment of Claim 1 wherein nucleic acid fragment is a functional RNA.

3. The isolated nucleic acid fragment of Claim 1 wherein the nucleotide sequence of the fragment comprises the sequence set forth in a member selected from the group consisting of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5 and SEQ ID NO:7.

4. A chimeric gene comprising the nucleic acid fragment of Claim 1 operably linked to suitable regulatory sequences.

5. A transformed host cell comprising the chimeric gene of Claim 4.

6. An isolated nucleic acid fragment encoding a pyridoxamine-phosphate oxidase comprising a member selected from the group consisting of:

(a) an isolated nucleic acid fragment encoding an amino acid sequence that is at least 80% identical to the amino acid sequence set forth in a member selected from the group consisting of SEQ ID NO:10, SEQ ID NO:12, SEQ ID NO:14 and SEQ ID NO:16;

(b) an isolated nucleic acid fragment that is complementary to (a).

7. The isolated nucleic acid fragment of Claim 6 wherein nucleic acid fragment is a functional RNA.

8. The isolated nucleic acid fragment of Claim 6 wherein the nucleotide sequence of the fragment comprises the sequence set forth in a member selected from the group consisting of SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:13 and SEQ ID NO:15.

9. A chimeric gene comprising the nucleic acid fragment of Claim 6 operably linked to suitable regulatory sequences.

10. A transformed host cell comprising the chimeric gene of Claim 9.

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